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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/071,528	02/08/2002	Michel Moulin	A34602 (065838.0302)	1343

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04/28/2004

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EXAMINER

FEGGINS, KRISTAL J

ART UNIT

PAPER NUMBER

2861

DATE MAILED: 04/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/071,528	<b>Applicant(s)</b> MOULIN ET AL.	
	<b>Examiner</b> K. Feggins	<b>Art Unit</b> 2861	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 23 February 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-10, 18-27 and 37-41 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10, 18-27 and 37-41 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-6, 9-10, 12-23, 26-27, 29-32, 35-38 are rejected under 35 U.S.C. 103(a) as being obvious over Schuster et al. (US 6,222,567 B1) in view of Zwijsen (US 6080993).

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). For applications filed on or after November 29, 1999, this rejection might also be overcome by showing that the subject matter of the

reference and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person. See MPEP § 706.02(I)(1) and § 706.02(I)(2).

**Schuster et al. disclose the following claimed limitations:**

\* regarding claims 1, 12, 18, 29, 37 & 38 an apparatus and method (disclosed by apparatus) for providing substantially intimate rolling contact between a donor sheet/transfer tape, 8/ and an acceptor element/substrate on cylinder, 1/ in a laser-induced thermal transfer printer (Abstract, fig 1) comprising:

\* a laser imaging head/laser writing head, 2/ (col 3, line 59, figs 1-2)

the apparatus comprising:

\* a rotatably mounted/having a shaft, turns/ cylindrical drum (figs 2-4, 5-8 & 10);

\* an acceptor element/substrate on cylinder, 1/ affixed to and supported by the cylindrical drum/1a/ (figs 1-3, 5-8, col 4, lines 7-9);

\* a rotatably mounted/ having a shaft, turns/ dispensing roller/supply roll, 4/ for dispensing a donor sheet (figs 1-3, 5-8, col 4, lines 7-9);

\* a rotatably mounted/having a shaft, turns/ receiving roller/rewind roll, 5/ for receiving the donor sheet, the donor sheet/transfer tape, 8/ being extended between the dispensing roller/supply roll, 4/ and the receiving roller/rewind roll, 5/ (fig 1-3 & 5-8, col 3, lines 49-60);

\* a plurality of rotatably mounted/having a shaft, turns/ contact rollers, 6a, 6b/ configured to bring a portion of the donor sheet/8/ extended between the dispensing roller/4/ and the receiving roller/5/ into contact along the width of a portion of the

acceptor element/substrate on cylinder, 1/, wherein the laser imaging head/2/ does not contact the donor sheet and does not contact the acceptor element/the beam contact the donor sheet and the laser resides between the transfer tape/ (figs 1-2, col 3, lines 49-64)

\* regarding claims 2, 13, 19 & 30; wherein the acceptor element/substrate on cylinder, 1/ is affixed to the external surface/1a/ of the cylindrical drum/substrate cylinder/1/ (col 3, lines 65-67, figs 1-2).

\* regarding claims 3, 20; wherein the plurality of contact rollers/6a, 6b/ comprises a first contact roller/6a/ in contact with the /substrate/ cylindrical drum/1/ and a second contact roller/6b/ in contact with the cylindrical drum/1/, wherein the portion of the donor sheet/transfer tape, 8/ brought into contact with the portion of the acceptor element/substrate on the cylinder, 1/ is the portion of the donor sheet/8/ located between the first contact roller/6a/ and second contact roller/6b/ (figs 1-3, col 3, lines 65-67).

\* regarding claims 4 & 21 wherein the first contact roller/6a/ is located proximate to the dispensing roller/supply roll, 4/ and the second contact roller/6b/ is located proximate to the receiving roller/rewind roll, 5/ (figs 1-3).

\* regarding claims 5, 14, 31; wherein the /substrate/ cylindrical drum/1/, dispensing roller/supply roll, 4/, receiving roller/rewind roll, 5/ and contact rollers/6a, 6b/ rotate in a synchronous manner (col 3, lines 59-64, col 4, lines 13-16, figs 1-3, 5-8). /Being that the transfer tape and the substrate on the cylinder drum travel at the exact speeds, it is inherent that the contract rollers rotate in sync with the supply, rewind rolls, because they turn in accordance with the drives of the supply and rewind rolls. Therefore the contact rollers, the cylinder, the supply & the rewind rolls rotate in a synchronous manner/.

\* regarding claims 6, 15, 23, 32; wherein the laser-induced thermal transfer printer comprises a laser imaging head for providing scanning laser (col 1, lines 49-57, col 3, lines 59-64) energy/beams/ to transfer material from the donor sheet/transfer tape/ to the acceptor element/substrate on the cylinder, 1/ to form a representation of an image on the acceptor element/1/, and wherein the portion of the donor sheet/8/ brought into contact with the portion of the acceptor element/1/ is the portion of the donor sheet/8/ located proximate to the laser imaging head/2/ (figs 1-3, col 3, lines 50-67).

\* regarding claims 9, 16, 26 & 35; wherein the apparatus does not comprise pressure plates to press the donor sheet/transfer tape, 8/ and the acceptor element/substrate cylinder, 1/ into contact /contact rollers are used/ (col 3, lines 65-67).

\* regarding claims 10, 17, 27, 36; The apparatus of claim 1, wherein the apparatus comprises a projection area/the area where the beam hits the transfer sheet/, and contact between the portion of the donor sheet and the portion of the acceptor element/substrate cylinder, 1/ covers a substantial arcuate/arc, curving part of the drum where the transfer tape and the substrate meet; they meet between the contract rollers 6a & 6b/ section comprising the projection area/the area where the beam hits the transfer sheet/ (see figs 1-3, col 3, lines 60-67).

\* further regarding claims 12, 29 & 38; wherein the dispensing roller and the receiving roller are configured to bring a portion of the donor sheet extended between the dispensing roller and the receiving roller into contact with a portion of the acceptor element (fig 1) for the purpose of

\* regarding claim 22; rotating the cylindrical drum, dispensing roller, receiving roller and contact rollers in a synchronous manner (col 4, lines 13-16, figs 1-3, 5-8) /Being that the transfer tape and the substrate on the cylinder drum travel at the exact speeds, it is inherent that the contract rollers rotate in sync with the supply, rewind rolls, because they turn in accordance with the drives of the supply and rewind rolls; therefore the contact rollers, the cylinder, the supply & the rewind rolls rotate in a synchronous manner/.

\* further regarding claims 37 & 38; a method for transferring material between a portion of a donor sheet and a portion of an acceptor element in a laser-induced thermal transfer printer, wherein the donor sheet and the acceptor element define contact points and non-contact areas,

\* wherein material is transferred across the contact points and across the noncontact areas.

**Schuster et al. does not disclose the following claimed limitations:**

\* regarding claim 1, substantially coextensive contact along the width of a portion of the acceptor element.

\* regarding claims 3, 6, 10, 15, 17, 20, 23, 27, 32 & 36, wherein the portion of the donor sheet brought into substantially coextensive contact with the portion of the acceptor element.

\* regarding claims 9, 16, 26 & 35, the acceptor element into substantially coextensive contact.

**Zwijzen discloses the following claimed limitations:**

\* regarding claim 1, substantially coextensive contact along the width of a portion of the acceptor element/image receiving element, 11/ (see fig 1a) for the purpose of detecting the beginning of a dye donor element.



\* regarding claims 3, 6, 10, 15, 17, 20, 23, 27, 32 & 36, wherein the portion of the donor sheet/donor element, 20/ brought into substantially coextensive contact with the portion of the acceptor element/receiver, 50/ (see fig 1a, col 3, lines 52-67) for the purpose of distinguishing variants of color dye donor elements.

\* regarding claims 9, 16, 26 & 35, the acceptor element into substantially coextensive contact (fig 1a) for the purpose of detecting the beginning of a dye donor element.

It would have been obvious at the time of the invention was made to a person having ordinary skill in the art to utilize substantially coextensive contact along the width of a portion of the acceptor element, wherein the portion of the donor sheet brought into substantially coextensive contact with the portion of the acceptor element and the acceptor element into substantially coextensive contact, taught by Zwijsen into Schuster et al. for the purposes of detecting the beginning of a dye donor element and distinguishing variants of color dye donor elements

3. Claims 7, 8, 24, 25, & 33-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schuster et al. (US 6,222,567 B1) in view of Zwijsen (US 6080993) as applied to claims 1, 18, 29 respectively above, and further in view of Patel et al. (US 6,291,143 B1).

**Schuster et al. as modified by Zwijsen disclose all of the claimed limitations except for the following:**

\* regarding claims 7, 24 & 33; wherein the donor sheet comprises a transfer layer comprising a photothermal converter.

\* regarding claims, 8, 25 & 34; wherein the donor sheet comprises a transfer/colorant/ layer and a layer adjacent to the transfer/colorant/ layer which comprises a photothermal converter.

**Patel et al. disclose the following claimed limitations:**

\* regarding claims 7, 24 & 33; wherein the donor sheet comprises a transfer layer comprising a photothermal converter (col 13, lines 11-14) for the purpose of providing forming durable images.

\* regarding claims, 8, 25 & 34; wherein the donor sheet comprises a transfer/colorant/ layer and a layer adjacent to the transfer/colorant/ layer which comprises a photothermal converter (col 13, lines 11-14) for the purpose of providing an improved laser addressable thermal imaging media in which residual visible coloration from the laser absorber is minimized.

It would have been obvious at the time of the invention was made to a person having ordinary skill in the art to utilize a donor sheet that comprises a transfer layer comprising a photothermal converter; and a donor sheet that comprises a transfer layer and a layer adjacent to the transfer layer which comprises a photothermal converter, taught by Patel et al. into Schuster et al. as modified by Zwijsen for the purposes of

providing forming durable images and providing an improved laser addressable thermal imaging media in which residual visible coloration from the laser absorber is minimized.

***Allowable Subject Matter***

4. Claim 39 is allowed.

The following is an examiner's statement of reasons for allowance: The primary reason for the allowance of claim 39 is the inclusion of the limitation of a laser induced thermal transfer printer that includes a plurality of units that comprises pairs of units comprising a first unit and a second unit, wherein the acceptor element is extended between a contact roller on the first unit and a free-rotating transfer drum, and wherein the acceptor element is extended between the free-rotating transfer drum and a contact roller on the second unit. It is these limitations found in the claim, as it is claimed in the combination of, which has not been found, taught or suggested by the prior art of record that makes these claims allowable over the prior art.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Burberry (5,424,759) discloses dye rollers for a laser thermal dye transfer. Gaskill (US 5,675,369) discloses a two-sided color printing apparatus that includes first, second, third and fourth thermal printing assemblies. Reynier (US 6052144) discloses a printer that prints images on a continuous web, wherein the web transported has a slack loop station.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably

accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

***Response to Arguments***

5. Applicant's arguments with respect to claims 1-10, 12-27, 19-38 have been considered but are moot in view of the new ground(s) of rejection.

Regarding Applicant's argument that Schuster et al. does not disclose that a portion of the donor sheet is brought into substantially coextensive contact along the width of a portion of the acceptor sheet is noted. However, Schuster et al. as modified by Zwijsen does disclose a portion of the donor sheet is brought into substantially coextensive contact along the width of a portion of the acceptor sheet. Please see above rejection.

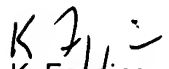
Regarding Applicant's argument that Schuster et al. in view of Mc Lain disclose a stationary print head is acknowledged. However, argument is moot in view of new grounds of rejection. Please see the above rejection Schuster et al in view of Zwijsen. Schuster et al. in view of Zwijsen disclose a non-stationary printhead and dispensing and receiving rollers that extend the width of the receiver element.

### **Communication With The USPTO**

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to K. Feggins whose telephone number is 571-272-2254. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Meier can be reached on 571-272-2149. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
K. Feggins  
April 24, 2004